



CALIFORNIA GARDEN

IN THIS NUMBER

NEW PLANTS FOR CALIFORNIA GARDENS

By Hugh Evans

ACACIAS IN SAN DIEGO

By C. I. Jerabek

GASTERIA

By Eric Walther

MAY, 1931

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No. 11

NEW PLANTS FOR CALIFORNIA GARDENS

To such people who conceive that the quest of beauty in whatever form it occurs is one of the things best worth while in life I commend gardening as a pursuit and as a hobby. For here you will see day by day, week by week, month by month, season after season and year after year in ever varying forms and aspects, beauty unfolding and expressing itself.

Take up the growing of plants and gardening as a pursuit and as a pastime and you shall find here no limit to your adventures, no confines to your endeavors and no end to your contentment, though with this same contentment you must expect to experience occasional pain by the way. Here is a field with inexhaustible possibilities, new accomplishments, fresh discoveries, new knowledge. We cannot all roam the Swiss or Austrian Tyrol in search of Alpine treasures, nor can we tread the high and misty paths of the Himalayas where gentians, primulas and saxifrage star and gem the slopes and where roses and rhododendrons take the place of our Chamisal and Chaparral, but we can, and should enrich ourselves and beautify our gardens, to say nothing of our lives, by collecting and nurturing those plants which men like E. H. Wilson, Kingdon Ward, Reginald Farrar, Forrest and a host of other intrepid and devoted plant collectors before them have brought within our reach from all quarters of the world. To such men as these we owe that which we never can repay. For the most part their lives and labors were arduous, their dangers and hardships were infinite and always present and their worldly recompense inadequate, saving the satisfaction they experienced in the knowledge of things worth while accomplished.

In going about the gardens in this part of the Country and in going through every garden of interest which I am able to, with some notable exceptions, I am usually impressed with one circumstance and that is the lack of imagination displayed either by the owner of the domain or by the nurseryman or gardener who supplied the plants. Considering in particular shrubs and the very considerable number of

them we have to select from, I cannot help being struck by the ubiquity, sometimes to the exclusion of most other plants, of such shrubs as Cratoegus, Cotoneaster, Pittosporum, Coprosma, etc. These things in themselves are admirable and meritorious, but when you see garden after garden stocked with dozens of these plants you wonder whether the gardens' owner ever fares forth abroad on journeys of observation to see what other plants may be discovered, such as will grow, thrive and beautify his or her premises. It is neither to be expected nor desired that gardeners will abandon those true and tried friends from whose society they derive so much pleasure and at the sight of which they experience such keen delight. These friends they hope to have with them always. They never want to be without them. These sentiments, however, do not preclude the acquiring of new friends. It is somewhat shocking to reflect that in the South of England, Ireland and Scotland are grown scores of flowering shrubs from Australia, New Zealand, Chile and other parts of South America and South Africa which can be procured neither for love nor money in the whole of our Country. I have been for a good many years now importing seeds and plants from other Countries than our own and watching their progress or their lack of it with joy or distress as the case may be. I can weigh their merits and pardon their offenses. Sometimes the statement is made that most of these new things we get in from abroad are not satisfactory, that we had better stay with what we have and be content. Man is never content. Human progress is based on discontent. Surely the same thing applies to gardeners. What can be more interesting than to get seed of some flowering shrubs from the sandy flats of West Australia, from the mountains or foothills of other parts of Australia, from South Africa, from South America, New Zealand—to raise them, nurse them along, plant them in a situation resembling as nearly as possible the one they know in their native habitat and see how they will respond to kind and intelligent treatment. Every true gardener, who is

entitled to that name, desires new and beautiful plants. He likes to experiment with them, to see how reconciled they will become to a new country and a new environment and to feel that he has made some contribution to gardens.

In my garden which is a stiff clay loam, I am often at great pains to make those things which revel in a sandy loam behave themselves at all. Some, I confess, I have found almost hopeless. Others appear to adapt themselves remarkably to their changed conditions, thrive lustily for a while and then incontinently pine and die. Sometimes almost overnight. In spite of all these trials and tribulations, these sad disappointments, there is a sturdy company which make up their minds to become good citizens of a new country. I think I may say and I do not say it so much with pride as with pleasure, that I have introduced a number of flowering shrubs and trees into California which were not known in our gardens before. I am going to enumerate a few of them which, in my opinion, possess unusual and striking merit.

Eucalyptus Macrocarpa. It appears to be a rather straggling shrub with very handsome glaucous foliage which it always retains, large rose colored flowers with yellow stamens in the axils of the leaves. These flowers are four inches across and very beautiful.

E. Pyreiformis—is a small tree with crimson flowers and yellow stamens, in clusters of about one half dozen. These flowers are also three to four inches across—very showy.

E. Erythrocorys—a small tree. Bright red flower buds and large deep yellow flowers in clusters. One of the most beautiful.

E. Torquata. Also a comparatively dwarf tree with vermillion colored buds and deep rose colored small flowers in clusters.

E. Caesia. Tall slender weeping tree, white trunk and grayish foliage with very large clusters of deep pink flowers with yellow stamens. One of the most beautiful of all.

Grevillea Leucopteris—a good sized shrub, foliage somewhat resembling a young pine, large plumes of white flowers on very long stalks, six to eight feet long. Very much resembling *G. Banksii* but much larger. Of this last named *Grevillea*, by the way, I have a white variety. *G. Leucopteris* seems difficult to manage. I have lost several.

G. Paniculata is a low spreading shrub with abundance of white flowers in the Spring.

G. Obtusifolia is a very low shrub, trailing in fact. *Grevillea* very much resemble *G. Thelmanniana*. An admirable ground cover for banks.

G. Wilsonii is the finest red flowering variety I have seen yet. Prickly foliage somewhat resembling some of the *Hakeas*. I think this

last is going to make a very worthy addition to our gardens.

G. Puniceus is also a very pretty red flowering shrub.

One of the most beautiful shrubs in my garden is *Chamaelaucium Urcinatum*, commonly called in Australia the GERALTON wax flower. In habit and flower it bears some resemblance to the *Leptospermums* but is more airy in habit and more beautiful and aristocratic in every way. The flower lasts very well in water.

The *Boronias* are particularly beautiful small shrubs with heath-like foliage and light crimson or pink bells all along the stems and very well adapted to moist sandy soils. They thrive with me to a certain age and then give up the struggle and pass away to a better world, leaving me lamenting. I can, however, console myself with the presence of their children by taking cuttings and in this way have them with me all the time.

All of the plants I have mentioned so far are natives of Australia. I do not flatter myself that I have learned all I have to learn about their requirements and sometimes I learn too late. What I would urge on all my readers is this: When they get a new plant from another country to ascertain, if possible, in what kind of soil it or its parents originally grew, what the amount of rainfall is in that district and under what exposure they were growing. In other words environment means the difference between life and death to so many strangers we welcome within our gates. If we would take more trouble to see that our plants were growing in the right situation and environment we would not experience so many disappointments.

In writing this very brief article on the introduction of new plants I feel that I cannot close without acknowledging the debt, which as a plant lover, I feel we all owe to the late Dr. Franceschi of Santa Barbara who introduced so many new and notable things; to Miss Kate Sessions of San Diego and a number of others whom I have no space to mention.

Hugh Evans,

"Hillhouse,"

April 20th, 1931.

Santa Monica, Calif.

NOTICE OF MAY MEETING

At the next meeting of the Association to be held in the Floral Building in Balboa Park, 7:30 p. m., May 19th, a round table discussion of Iris culture will take place. Short talks by successful Iris enthusiasts and a comprehensive talk by Lieutenant-Commander John A. Monroe of Chula Vista on the preparing of soil for Iris growing will be the features of the evening. An exhibit of Iris will be on display and the usual social hour will be enjoyed.

A NOTE ON THE WILD FLOWER EXHIBIT AT THE SPRING FLOWER SHOW

By Fidella G. Woodcock

San Diego Natural History Museum

April this year has been a surprise in the way of wild flowers on account of the passing of many blooms after the heat of early January and the cold rains that reduced the size of flowers before January was over. The balance fell on the desert when the rains were over and we for once had to depend entirely on these denizens for our display as others were not fit.

The Oasis of the Colorado Desert northwest of Salton Sea sends an arm into the uplands toward Warner Hot Springs that is the veritable valley of happiness for those who are contented in the natural life. Borego Valley is secluded from the present highway but one mile east of the Narrows. Mr. Fleming and Mr. Huey chose the right spot for a group of plants that nature created to live well together—cactus, juniper, agave, ocotillo, smoke-tree, and other indigo species, cassia, beloperone, krameria and sphaeralcea (globe mallow).

Of these beautiful cactus, *Opuntia basilaris* outshone them all in beautiful coloring and the *Pentstemon centranthifolius* was a dear delight to those who prefer brilliant red. Many of our citizens expressed wonder that these remote things were growing in our country at all as it is not a common practice for pleasure seekers to walk among the ways of the desert. San Felipe Valley is a typical range for these species and further on to Borego it is wild and gruesome with gaunt flaming types of rare loveliness. Wildly wonderful as it is, it is better farther on up in the rocks. The Natural History car sought such a spot for a collection. The protected area below sea level gives shelter to the ground carpet of pine flowers clinging to the sands unless on the ridges. Where the summer rains hit the ridges the agave dares to grow to the height of a well developed pinon. But the palm overtops the pine in the saline washes and the opening up into the wild verdure of this section is a revelation as to what wild nature can do for itself with all the necessary conditions—salt, soil, shelter, moisture with erosion from the old red sandstone sea rocks. The proteins of primal sea bottoms have enriched this region until there is a surfeit for pleasure after the useful products are placed in the environments.

Borego Palm Canyon, the last resort of the nearly extinct Bighorn, and Southern California Mountain Sheep, and of the plants that provide food and drink for his small herds, even without water wells, is a part of the world's geography that nature will never repeat. Why give this tract over to waste when

as a desert park it is priceless for the development of the human mind in geology and the kindred sciences, and sea life?

This flora is a unique survival as is the Torrey Pines tract and is a natural creation of changed environment that should be kept as material for the expansion of the human mind for future research in material wisdom.

Our display of wild flowers of these brilliant types shows how well desert nurseries can be made to compare with those of the city gardens in color, and strength. The Judas Tree, called in California, Redbud, is cosmopolitan. It grows along the Pacific side of the coast ranges, often illuminating large canyons from Mexico to the state of Washington. At intervals it appears as far north as Kansas and onward to New Jersey.

Among our rare plants, the native *Cassia armata* of the Mohave Desert came to the front with *Parosela emoryi* the indigo bush of that region. *Beloperone*, not in its happiest flower, was still carrying its rich trumpets that sound the note of spring competing with the Scarlet Buglers still more gorgeous of San Felipe. The Desert Sunflower grew beside the Desert Lily all aglow with sand and Larkspur and trembling *Mimulus* of the washes. Beside them the fragrant *Incienso* of the Mexicans, a flower for burning in the sanctuary seemed full of silvery sheen of the foliage and traced with golden stems and rayed flowers. We had much to do to keep these spiny things from jaggings especially *Krameria*, a rose and gray shrub similar to *Perosela* that has purple pea-like flowers and is very spiny.

Many of them still remain and the memory of their rare coming is not to be forgotten. The barrel cactus, *Echinocactus Ferocactus Acanthodes* will no doubt last more years with good care and not too much water for its nest of blossoms and well filled cells of storage wells. Sometimes without water for a year or two they bloom on the body of the cactus. It is a marvel of adaptability to course of life.

"INTERESTING EVENT IN IRIS NURSERY RECALLS DR. P. A. LOOMIS TO COLORADO

It was hoped that the San Diego Floral Association would have the pleasure of hearing Dr. P. A. Loomis of Colorado Springs, speak at the May meeting, but a message was received by him in his La Jolla home early in May, announcing the appearance of buds on some precious seedlings that he had produced with his noted scientific hybridizing. It was only a matter of a few days to see him on his way back to Colorado Springs but he has promised to be with us on his return next winter and tell us some interesting stories about his experiences in the growing of Iris.—C. B. T.

"BULB TOURS" IN HOLLAND

Special to The Christian Science Monitor

Margaret McLaughlan, when faced with the necessity of helping to provide for a delightful family of three boys, offered her services to a celebrated travel bureau in London and obtained the appointment to open up for them tours in Holland. With characteristic courage she undertook the work without any previous experience beyond the advantage of a Swiss education and of having traveled pretty extensively in Germany.

The usual tourist season in Holland lasts from June until the end of September, but it occurred to Mrs. McLaughlan to make up a small party of friends to visit the bulb fields in April. So successful was the trip and so great was the enjoyment experienced that she submitted the idea for the consideration of her firm and the following year a tour was advertised.

"It was an enormous success," Mrs. McLaughlan told a representative of The Christian Science Monitor. "I had made arrangements for a party of about 12 people, but in the end I had 76 to take care of. I took them all over Holland, and we visited the bulb fields as well.

"I had previously made such detailed inquiries as to cost, that at the end the trip worked out almost to a penny."

The first party left London about April 15, as that is the earliest possible date to see the flowers in bloom, and the time was arranged to suit school teachers' holidays. "Early as it was," Mrs. McLaughlan said, "we found the daffodils, jonquils and narcissus at their best. A later tour, however, is a better one. Starting about April 23, the traveler finds the hyacinths and tulips all out."

The beautiful old town of The Hague was used as a center, and from there daily expeditions were made. View from the air, the bulb district of Holland has been described as resembling a patchwork quilt, so evenly are the brilliantly colored patches of flowers marked out. "The most vivid picture postcard," Mrs. McLaughlan said, "fails to express the color of this tract of land extending for about 30 miles along the coast between Haarlem and Leyden, where the sandy soil is specially suited to the growth of bulbs.

"The first day of the tour is spent in driving through fields of fragrant hyacinths too beautiful for words. No matter how high expectation has been the actuality far exceeds it. The second day is devoted to a magnificent excursion to Amsterdam and the Zuyder Zee, which takes the party through a portion of the bulb district again."

Mrs. McLaughlan always makes a point of getting permission from one of the big bulb growers to walk through the bulb fields, and either the owner or his manager generally accompanies the party and explains that the bulbs are not perfect until the third or fourth year. And it comes as a surprise to most people to hear that the plants are grown for the bulbs and the flowers are picked and piled in heaps ready for use as a fertilizer.

As The Hague is not a big center, Mrs. McLaughlan is able to conduct most of the excursions herself, and she has an amazing gift for conveying in a few sentences the temper of an age or the heroic qualities of an individual. The fact that she made a special study of the history of Europe during the marvelous awakening period of the Reformation, and that her particular hero is William the Silent, makes her an inspiring mentor and guide in the country of this "Father" of his people.

The remaining days of the Bulb Tour are spent in visiting places of interest, Leyden the birthplace of Rembrandt and many of the old Dutch painters; Gouda, famed for the marvelous medieval stained glass windows in its church, 13 of them by Dirk and Wouter Crabbe who are generally considered the greatest artists in stained glass that the world has ever known, and Delft, the home of William the Silent, one of the grandest characters in history.

But it is of the flowers that the tourists carry away the most vivid and joyous impressions—miles and miles of flowers, blues, yellows, and pinks, of gorgeous hyacinths and tulips of a red deeper than can be imagined! Between the patches of color are ditches or canals of water, blue with sky reflections; and dotted here and there among the flowers are little whitewashed houses, looking like dolls' houses, and the sheds where the bulbs are stored after they have been taken out of the ground and dried ready for export all over the world.

FINANCIAL REPORT OF THE SPRING FLOWER SHOW

Gate Receipts	\$480.70	
Expenses—		
Trophies and engraving..	\$ 75.90	
Publicity	55.00	
Labor	28.75	
Ribbons	15.90	
Clerk's Expenses	5.85	
Laundry	5.80	
Total.....	\$187.20	187.20
Net Receipts	\$293.50	
Mary Greer, Chairman.		

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The Garden

By Walter Birch

Now that May is here we realize that it is time for planting Chrysanthemums again, and they are one of the flowers we cannot afford to do without, blooming as they do in the fall and winter, when other flowers are scarce, and making a fine show in both house and garden, as they are one of our best cut flowers.

There are many attractive types of mums, running from the wee button type to the huge exhibition flower, grown with from one to three blooms to the plant, and usually raised under the protection of cheese cloth or something similar, and fed with fertilizer, liquid and otherwise to produce the very finest quality of flowers. However, for the ordinary garden there are few flowers which will give you more value and pleasure and do with less care than the more commonly used types of mums. The blooming season is long, the range of color fine and the different types of bloom most attractive.

In making the Chrysanthemum bed choose a sunny location and if possible good rich soil that has been well fertilized with animal manure, deeply spaded in. A bed three feet wide and as long as required, with a ridge of soil around it to facilitate occasional flooding, will allow room enough for two rows of plants, leaving a foot each side and between the plants. For best quality of flowers use well rooted plants of named varieties raised from top cuttings.

There are many mum plants raised from side shoots, and that is the easiest way to raise them, but all good growers use top cuttings for best results in blooms. When planted in permanent bed, apply a good surface mulch of well rotted manure both for feeding and conservation of moisture. For growing satisfactory blooms for general garden purposes, pinch out center of plants when about ten inches high so as to make them break, and when the shoots are started decide how many you wish to retain on each plant. For larger blooms plants should be supported by stakes, for ordinary flowers, on plants that are well pinched back, staking is not necessary, as the plants are more dwarf in growth.

Remember that mums are moisture loving plants, so do not stint on water, and see that it gets down below the roots.

Finish up your Dahlia planting this month,

there are many high grade tubers being offered now at very reasonable prices. The following are worth while: Black Jack, decorative, deep maroon; California Beauty, cactus, copper; Daddy Butler, cactus, rosy carmine; Eleanor Vanderveer, decorative, rose pink; Flaming Meteor, decorative, scarlet and orange buff; Jane Cowl, decorative, bronze and old gold; Miss California, Princess Pat, cactus, rose and buff; Tommy Atkins, decorative, flaming scarlet; Trentonian, gold and bronze.

Continue setting out Asters, Giants of California and Dahlia Flowered Zinnias and plant a few Gladioli bulbs of which you can now buy some of the best at ridiculously low figures.

Alyssum saxatile and its variety *citrinum* are familiar to rock gardeners throughout the United States and indeed they are among the most worthy of their tribe. But there are other *alyssums* as easily grown and equally interesting. Most of these have, like the above mentioned, gray leaves and yellow flowers and all seem to like a warm dry exposure.

A. argenteum is a strong growing plant with wiry stems, small gray green leaves and flowering stalks a foot (sometimes more, sometimes less) long, capped by flat heads composed of dense clusters of small, bright yellow flowers. It blooms early in summer, at the same time as *campanula rotundifolia* and the two make a pleasant combination.

A. serpyllifolium is a smaller and daintier plant than *A. argenteum*. It is only a few inches high, has rough foliage and soft yellow flowers.

A. spinosum, more correctly known as *Ptilotrichum spinosum*, makes delightful silvery hummocks a foot or more across. The growth is dense and spiny and in early spring the whole silver-white mat is hidden by a sheet of small white blossoms. *A. spinosum* var. *roseum* is very light pink.

All *alyssums* are better for an annual shearing, preferably after bloom is over.

—Lester Rowntree, Carmel, Calif.

Mr. and Mrs. H. C. Dunning invite the members of the Floral Association and their friends to visit their garden on Sunday, June 7th, from 9:30 a. m. to 5 p. m.

The California Garden

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
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McKELVEY'S

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The editor regrets to announce his resignation as editor of the "California Garden." While his tenure of office has been short it has been made very pleasant by enjoyable associations and contacts with both contributors and readers. He frankly believes he has been benefited far more than the magazine by his association with it. It is a rich experience that comes with constant contact with the contributors to the "California Garden." He believes his most pleasant memory will be of the faithful, tireless efforts of the many valuable contributors who co-operatively make possible the publication of this unique magazine.

Their exceptional horticultural knowledge and ability has resulted in a circulation that extends literally to the four corners of the earth.

S. B. Osborn.

MISS K. O. SESSIONS IMPROVING

As this number goes to press, word comes that Miss K. O. Sessions is convalescing satisfactorily and is now chafing to be back among her beloved plants and trees. It will be of interest to readers to know that a movement is under way to plant an agave and aloe garden in Balboa Park in her honor, this particular type of planting in the park being a long cherished ambition of Miss Sessions. Many prominent people have indicated their approval of this project and the Board of Park Commissioners will be requested by the Board of Directors of the S. D. Floral Association to set aside an area for this purpose.—Editor.

SAN DIEGO ROSE SHOW GAINS NATIONAL RECOGNITION

Evidence that the recent rose show of the San Diego Rose Society, has become nationally recognized as the largest exhibition of exclusively roses in America, is contained in the following excerpt from the news columns of the April 30 number of the "Florist's Review," a national horticultural trade magazine published in Chicago, Illinois. Quote:

"The recent San Diego Rose Show won fame for itself when J. Horace McFarland, President of the American Rose Society, declared the show is the largest in America. More than 20,000 flowers were on exhibition."—Editor.

CHULA VISTA FLOWER SHOW

The community of Chula Vista is to be congratulated on the fine showing of their annual spring flower show held April 11th, and 12th, under the auspices of the Chula Vista Women's Club. To all outward appearances the show committee under the leadership of their capable and experienced chairman, Mrs. C. W. Darling, functioned efficiently and harmoniously. A very appetizing and bounteous luncheon was served to the judges immediately prior to the actual judging. This plan which has been the established custom for a number of years is well deserving of mention. In the first place, it begets promptness in commencing the judging. Luncheon is served promptly at 12 noon, and while the judges are being beguiled with dainties and comfortably seated generally carrying on an animated conversation with each other and their hostesses, the last vestiges of the bustle and confusion caused by last minute arrangements disappear. Section chairmen have an opportunity to check over their entries and have them in perfect order for the judges. Ample judges are obtained (generally nine) so that the judging may be carried on leisurely and efficiently. In addition, it enables the show committee to keep the display room cleared from visitors and still allow the public

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in at the appointed hour. Too many times judges are imposed on to the extent that they are so mentally and physically exhausted near the end of their work that they are prone to err in their haste to finish at a reasonable hour.

Enough of judging: The show is held in the Chula Vista Women's Club House, a well designed Spanish building with a restful patio off the exhibition room. Chula Vista's are distinctly garden-minded, and their floral displays bespeak this fact. Without attempting to elaborate on particular classes or entries, suffice to say that they have a very complete flower show. From still-life pictures and decorated dining tables down through annuals, perennials, bulbs and roses, they display both quality and quantity in variety.—Editor.

FUCHSIAS

The Fuchsias are now covered with their gorgeous bloom. They delayed their appearance about 2 weeks after our Flower Show and thus missed the glory in which they had been expected to shine. *Gracilis Variegata* is a bouquet even if it had no blooms, as is also *Sunset*. *Baron Ketteler* is superb with its immense double flowers. *Swanley Yellow* shows its color all the year but now is hanging full. *Henry Henkle* also is especially rich in color now, both leaf and flower. *Abbe Fargus* never misses a day in the year without showing its colors, as also does *Black Prince*, *Rose Phenomenal*, *Rose of Castile*, *Ballet Girl*, *Le Robusta Arabella*, *Diamant*, and many others. The new *Swanley* forsakes us during winter but is now in full bloom again, and tying for admiration with *Beauty of Exeter*. As soon as the hot dry weather comes they will show their displeasure by losing the richness of color and also their size, but one can help them by plentiful mulch and water. Try giving them *Floranid* also, according to directions, a teaspoonful in one gallon of water, given once in 2 weeks. Then spray for *Aphis* and *Thrips* occasionally.

Evelyn Steele Little, Secretary of our National Fuchsia Society has a very interesting article in March issue of *Western Homes and Gardens*, which you can obtain at the Library, if you are interested. And she writes that she will also look for new Fuchsias for us in England, for which country she has just started. Last summer four of the Society members hunted in Europe for new specimens for us, and Mrs. Little is the first to start this year. It is really a serious matter that we cannot all travel in pursuit of our hobby, but they promise us a share of the spoils on their return. Hence, if you have not sent in your application for admittance to the American Fuchsia Society, here is an urgent appeal, and you will receive full value.

Bertha M. Thomas.

MISCELLANEOUS EGGS

First—Ant eggs. We used to pay \$1 a pound for them as food for gold fish. But that was in Illinois. Now we have them galore, free, and who thinks it worth while to use them, in California. When you find a nest of them throw dirt and eggs into a pan of water, then skim off the eggs, for they will float. Thus you save money for fish food, also for *Antrol*, and if we would all religiously "Ant" our gardens we would not find so many in the sugar bowl later.

Then the Snail eggs. When you discover those bunches of pretty white round morsels while digging among the plants, throw them also into the water pool. Of course they are too large a mouthful for small fish but the large ones eat them greedily. And you have destroyed just that many garden snails which would very soon have been boasting, by their work, of their large happy families.

And frog eggs. The large fish like them for breakfast, but they need a little assistance in separating them from the gelatinous mass which surrounds them. And the frogs appreciate the finny appetite as has been proven by the fact that they will deposit their eggs in a pool devoid of fish and entirely ignore a similar one, by its side, in which they see fish.

As for Water Snail eggs, if you are not familiar with them, look on the under side of the lily leaves. The common pond snail, the Ramshorn and the African, deposit their eggs on a leaf or a stem which is either decaying or nearly so—the African is always in crescent shape mass while the others are in a circular shape. The Japanese or trap door variety bear their young alive and all safely housed in their tiny shell. If one doesn't wish the pool too thickly populated with snails, it is easy to destroy part of the eggs but here again the fish's hearty appetite comes in to preserve an equilibrium.

The Dragon Fly lays myriads of eggs in the pools. These are small and of course the fish lunch off them enough so they do little harm. But the larger kind which lives in the water a year is a vicious creature both in looks and behavior, and devours small fish.

The variety of eggs in your water pool is too numerous almost for counting, if one includes the microscopic animals which, by the way, is one of the most fascinating subjects, but these are a study by themselves.

Bertha M. Thomas.

On Tuesday, May 5th, the San Diego Floral Association visited the garden of Mr. Frank Strausser. A description of this enjoyable garden will appear in the next issue of *California Garden*.

ACACIAS IN SAN DIEGO

By C. I. Jerabek

South of a residence at 4034 Randolph Street, are several other species of acacias not mentioned previously; one is *A. aneura* (Mulga) and though this is never a very large tree yet it is a beautiful specimen of acacia. The phyllodia are usually lanceolate-falcate shaped and a pleasing silvery color. The flowers come in spikes and are golden yellow. There is a handsome tree growing on the south side of a residence at 1448 Torrey Pines Road, La Jolla. Near this specimen is another beautiful tree called *A. pruniosa* with attractive finely cut foliage of a rich light green, the new growth a soft shade of bronze. The pale yellow flowers grow in racemes of about thirty. Another lovely tree of this same variety may be found at 4309 Plumosa Way; but the largest one in this vicinity is growing on the side of a canyon north of a residence at 1026 Douglas Street.

A. pendula (Weeping Myall) is a beautiful tree with narrow silvery gray foliage and graceful pendulous branchlets. It bears yellow flowers in heads of about thirty, but it is the attractive drooping branches with the silver colored phyllodia that give the ornamental value. A small tree is located near the *A. aneura* on Randolph Street and a larger tree may be found west of a residence on the northeast corner of Fourth and Quince Streets, while four lovely specimens are growing along the main drive southwest of the Museum in Presidio Hills Park; nearby are four *A. aneura* which look very similar.

Near this same location is another interesting variety, *A. armata* (Kangaroo Thorn). This is generally a spreading shrub covered with small triangular deep green leaves, the flowers are a light yellow. The shrub has numerous small spines and though it is used occasionally for hedge purposes is not so desirable as some other kinds of shrubbery. On the corner of Fort Rosecrans and Xenophon Streets there is one about twelve feet high grown in the shape of an umbrella and another one in a low formal shape in front of residence 4395 Ampudia Street.

There is one variety entirely different from the other acacias, suggesting some kind of a conifer. This usually grows in a bushy, spreading habit, the needle-like foliage is a dark green; the deep yellow flowers are borne in spikes often concealing the phyllodia. When properly trimmed this makes a beautiful hedge. This odd tree is called *A. verticillata* (Whorl-Leaved). One can be found in its natural state, west of a residence at 2315 Fort Stockton Drive and 3385 Granada Street.

A. Elata is a tall growing tree with large handsome compound pinnate leaves of a dark

green color. The flowers are a pale yellow in compound racemes. Generally these trees grow so tall the real beauty of the blossoms and foliage is lost. Three excellent specimens are growing in the western part of Balboa Park; one near a path north of the old rose garden and the others beside the path south of the Juniper Street canyon; one across the path from the last *Ficus netida*, and the other about ten feet north of the next rubber tree.

A. Salicina, var. *Wayae* is an artistic little shrub, the phyllodia are oblonglinear of a bright green color. The seeds of this species must be picked as soon as ripe, for when they get real dry the pods burst discharging the seeds in all directions. Several trees are growing in Balboa Park along the path northeast of the Sixth Street Aviary and an elegant row is located southwest of Walter Merrill home at 502 San Elijo Street, Point Loma.

A. riceana is a lovely tree with graceful pendulous branches, the foliage is clustered, less than an inch long and about one-twelfth of an inch wide, of a deep green color; the flowers are golden and usually remain in bloom for some time. This makes an excellent tree for a shaded and moist location, also very desirable for a lathhouse as it can be trained around the posts or in charming arches over the entrance ways. In the grounds of Mrs. F. R. Burham at 3563 Seventh Street, near the end of the south wall is an elegant specimen, in fact the only one of its kind known to the writer in this city.

A. obtusata is usually a tall shrub resembling *A. retinodes* in the form of growth, the phyllodia is spatulate shaped and of a light bluish green color; the flowers are in short racemes in densely packed heads. A good specimen may be found near the driveway at 3252 Trumbull Street, Point Loma, and another one is growing in Balboa Park on the edge of the bank near Sixth and Fir Streets.

In this same vicinity of the park are two more interesting acacias; one is called *buxifolia*, a shrub with angled branches covered with ashy hued phyllodia nearly an inch long and about three-eighths of an inch wide, with small golden flowers in the axil of the phyllodia. When this variety is out of bloom and without seed pods you might take it for a *Leptospermum*. The other acacia is across the path. It is *penninervis* (Mountain Hickory) a tall shrub or small tree with lanceolate-falcate phyllodia generally very narrow. One peculiar thing about the phyllodium is the secondary nerve terminating in the marginal gland; the flowers are globular, of a light yellow color and come in small racemes.

Growing among the shrubbery northwest of the Botanical Building in Balboa Park are two *A. dietrichiana*, generally a spreading shrub with linear-shaped phyllodia about three inches long of a silvery green; the flowers come in the axil of the phyllodia, fragrant and are usually solitary.

At Miss K. O. Sessions' home on Soledad Terrace are several newer varieties. The broom wattle (*A. calamifolia*) with very narrow linear phyllodia, green in color; the yellow blossoms in the phyllodium aril and in short racemes.

A. linearis, a small shrub with narrow linear phyllodia, almost as slender as pine needles; the flowers in loose spikes.

A. linifolia var. *puminens* is a tree with oblong-lanceolata phyllodia and golden flowers.

A. obliqua is a dense shrub sometimes with drooping branches, the phyllodia is very small obliquely obovate, a dull green, with golden blossoms. One curious thing about this variety is the seed pods which are twisted forming a figure eight.

A. viscidula grows to be a large shrub and sometimes is mistaken for a narrow leaved *A. retinodes*, but its flowers are short stemmed in twos, and it has very small pods.

A. leptoclada is a small tree with very small bipinnate leaves of a silvery hue which are scattered along the branches and large golden blossoms.

And then there is an acacia called *pubescens* the loveliest of all, with soft fern-like foliage of a delicate shade of bluish green and exquisite golden blossoms hanging in graceful racemes on the drooping branches which sometimes reach the ground from the weight of the bloom.

On the grounds of Mrs. Erskine J. Campbell, Point Loma, is a very unique acacia called *sphaerocephala* (Bull-Horn Cuernitos de Vera Cruz, Arbol de las Normigas). The curious things about this tree are the two kinds of leaves and the stipular inflated spines. In its native country there are certain stinging ants which utilize the hollow stipules for nesting places for rearing their young, they usually bore the spines near the tip on the underside so no water may come in. The globose heads of flowers grow on thickened stems in the axil of the spines.

IRIS

Keener interest in the culture of Iris was evidenced by the fact that in the Spring Show of the San Diego Floral Association some very worth while specimens were exhibited by many times more individual exhibitors than heretofore. Three exhibitors who have in previous shows contributed the largest exhibits were sadly missed. They were Mrs. Herbert Evans,

Miss Mildred McLemore and Mrs. Martha Daly Maxwell. Mrs. Neff Bakkers, who won the A. I. S. sweepstakes had a good sized display of Bearded Iris, some lovely Dutch and a vase of beautiful blue Spuria. The collection of Miss Mary Mathews, showing blue and white Sibericas, Ochroleuca, and other spurias, and some fine specimens of Fulva was of special interest to Iris enthusiasts. There was a large display of Dutch and Spanish Iris, the outstanding feature being one called Gypsy, exhibited by D. W. Miller of Chula Vista. Mrs. Clayton Wight of La Mesa had a display of Regellas and *Oncocyclus* and their hybrids that made Iris lovers delirious. The colors in these remarkable flowers are like those of the fires in opals.

The Iris section of the show was teeming with interest on the opening afternoon because, besides the amateur exhibits, we had, through the courtesy of Mr. and Mrs. Erskine Campbell, a large collection of rare and outstanding varieties from their Alpine estate. Here too was Dr. S. S. Berry of Redlands with a large number of specimen blooms, the outstanding feature of his display being a spray of graceful Watii. The amiable C. S. Miliken of Pasadena also had his usual fine display of interesting Iris and as visitors we had the famous Iris authorities, Dr. P. A. Loomis of Colorado Springs and Mr. Cooley and wife from Oregon, thus making a memorable occasion for us all.—C. B. T.

WEATHER DURING MAY

By Dean Blake, Weather Bureau

This month is characterized by many cloudy days, and usually has less sunshine than any other month. As it is the transition period between spring and summer, and the sensible temperature, or the temperature felt by the body is low, the impression is given that it is the least enjoyable month of the twelve. However, actual temperatures are never very low or high, and this makes it a time especially favorable for outdoor occupations and recreations.

The rainy season comes to a close either in April or May, so storms rarely occur and the long dry summer is usually ushered in. Only eight times since 1850 has a total over an inch been recorded, and the average is but 0.34 inches. Stormy winds or gales are unknown.

Because of the cloudiness, range in temperature is small with relatively low day and high night readings of the thermometer. Maximums over 80 degrees are almost unknown, and the minimum has gone below 45 degrees but once in 59 years. All danger from frost is over in the citrus districts and the agricultural valleys.

GASTERIA

By Eric Walther

Reprinted from The Journal of The Cactus and Succulent Society of America.

Vol. I, No. 12, p. 234-238, June, 1930.

Of the many succulent genera forming part of the rich and varied Cape-flora by no means the least valuable horticulturally is *Gasteria*. A majority of its species are of restrained habit, with compact rosettes of variously spotted leaves and slender racemes of gracefully pendent flowers in soft shades of rose, white and green; a combination of characters which makes these plants especially suitable for collections limited in space.

The name, *Gasteria*, has reference to the inflated perianth, and literally means "belly-flower." This character, in connection with the usually recurved corolla and the distinct, smaller and unarmed leaves, readily serves to distinguish *Gasteria* from *Aloe*. Nevertheless they are nearly related, so closely in fact that formerly the two genera were united under *Aloe*. They are undoubtedly of common origin, with *Gasteria* perhaps the most primitive and resembling the common ancestor the most. The connecting link may be sought in forms similar to *Aloe plicatilis*, with obscurely denticulate, 2-ranked leaves, or to *Aloe variegata*, whose trifarious leaves have markings and edges remarkably like those of a *Gasteria*. The last mentioned *Aloe* has been particularly prolific of hybrids with *Gasteria*, another fact hinting at close relationship. We expect to have more to say about some of these hybrids soon.

Aside from the usually ventricose, more or less recurved perianth with its reddish tube and green-lined segments, the genus *Gasteria* is well marked by the fleshy, spotted or tuberculate, entire or finely denticulate, often 2-ranked leaves. In most cases these leaves are sufficiently characteristic to permit of ready determination of the species without regard to the flowers, which last are in only too many instances very much alike, at least superficially.

Most common in our local collections is apparently *G. cheilophylla*, with glossy, spotted, obliquely keeled leaves in two spiral ranks, the rosettes becoming many-ranked with maturity. The plants sucker freely, but the young offsets, as is customary in the genus, are of quite different aspect, with thinner, flatter, 2-ranked leaves. The inflorescence is an ample panicle, with several racemose branches bearing the usual nodding, inflated, rose and green flowers. With proper treatment, this, as most other species, will flower twice a year. Almost as frequently cultivated is *G. verrucosa*, the warty *Gasteria*, having several varieties all agreeing in their rough-warty leaves and flow-

ers that are more brightly colored than those of other species. Of quite a different type is what we call *G. carinata* var. *strigata*. This has large, spiral rosettes of thick, recurved, trigonous leaves that may reach two feet in length, but the flowers are of the usual small, pale kind and could well be improved by hybridization. Of interest in this connection might also prove *G. acinacifolia* and *G. croucheri*, both with flowers fully 2 inches long. The three last-mentioned species are a part of the large collection accumulated by Mr. Wm. Hertrich of the Huntington Botanic Gardens, to study which the writer sometime ago had the opportunity. The key herewith appended is the result of these studies, and in so far as the said collection is representative of the species more commonly grown in our gardens, the key also should prove to be of more general application.

A few of the more desirable species as yet lacking here may be cited. We recommend *G. fuscopunctata*, the largest species of the genus, with an erect, much branched panicle and large, brown-spotted leaves; *G. maculata*, greatly resembling *G. planifolia* with its glossy leaves; *G. candicans* of the group *Grandiflorae* with flowers to 2 inches long; *G. fasciata* with beautifully marked leaves, etc.

Of some late introduction, by E. O. Orpet and others, we may mention *G. angulata*, *carinata*, *lauchei*, *subverrucosa*, *zeyheri*, etc., but as yet we have seen no flowers of these, and only young, probably atypical plants. Their admission into our key would be based entirely on trust in the names under which the seeds or plants were received; and while we may have become somewhat too cynical, our experience has caused us to be very chary about taking for granted any name in a genus so difficult and prone to hybridization.

The cultural requirements of *Gasteria* are so easily met as to scarcely need mentioning. Most of the species are fairly hardy and will thrive under ordinary garden-conditions. Even if able to withstand almost any amount of drought and neglect and while appreciating the drainage furnished by rocks, light soil, etc., they by no means dislike moisture. On the contrary these plants respond very favorably to good soil, frequent watering and partial shade. As far as we are aware, *Gasteria* suffers here from no serious pests, with the exception perhaps of an aphid (probably *Anuraphis tulipae* Fonsc.) which sometimes ruins the flowers. Most species sucker so abundantly as to make propagation a very simple matter. Furthermore, all species seem to be capable of increase by means of leaf-cuttings. The latter root surely, if sometimes rather slowly, when placed into slightly moist sand; and it is not essential to detach the leaf with the base intact. A single leaf has been known to give rise to several

dozen young plants, after hope of its ever growing had been almost abandoned. Seed is only rarely produced locally without hand-pollination, the particular bees responsible for fertilization at home apparently having no effective understudy here (*). Or possibly the plants are self sterile. Most of ours, having been derived from single seedlings or imports by vegetative propagation, would consequently be impotent to pollinate other plants that are substantially the same individual. Cross-pollination offers a fascinating pursuit to the amateur possessed of some leisure, and requires no particular skill. The results should be quite valuable horticulturally, even if perhaps disapproved of by some old-fashioned systematists.

True enough, the genus is sufficiently difficult botanically, largely due to the fact that some species flower while still in the juvenile stage of habit and foliage, causing them to be named and described as distinct. That in cultivation the various species cross readily has already been mentioned; and only extensive field-studies in their native habitat can decide to what extent they also interbreed there, and how many valid species really exist. As most succulents, *Gasteria* also makes poor herbarium specimens, so that our main-reliance has to be placed in the available illustrations. The writer considers himself fortunate to have access to what is one of the finest botanical libraries of the Pacific Coast, i. e., that being accumulated at the California Academy of Sciences by Miss Alice Eastwood. Besides many other rare treasures this includes Dillenius' "Hortus Elthamensis," containing what is apparently the first illustration of any *Gasteria*. Other works seen were DeCandolle's "Plantae Grasses," Haworth's "Synopsis," and Prince Salm-Dyck's classic "Monographia Generis Aloes." The last is constantly referred to by Berger in his monograph, which we here follow. Unfortunately this is in Latin and not generally available. Trelease's treatment in Bailey's Cyclopaedia is based on Berger, and does not include all of our material.

Of the 43 species admitted by Berger only 16 are known to the present writer from local material. A few of our plants are not with certainty referable to any known species and may be hybrids. Ten years before publication of Berger's work, Baker in the "Flora Capensis" already enumerated 43 species; and it is indeed curious that Berger added not a single species to the number. It seems improbable that nothing new remains to be discovered in this genus when our knowledge of all other succulent genera of South Africa has been so enormously enlarged of late years. Let us hope that we may soon be able to report the discovery and introduction of further material.

We were recently privileged to make the acquaintance of Prof. R. H. Compton, Director of the National Botanic Gardens at Kirstenbosch, near Cape Town; and we hope to persuade him to give us an original article on this or an allied subject soon. He told us, that at the Cape, where *Gasteria* is endemic, the plants inhabit the region of winter-rains and summer-drought. There they commonly grow in the shade of some shrub (a hint to our cultivators) and are most difficult to discern when not in flower. The truth of this was most forcibly impressed upon us when we tried to obtain a clear-cut photo of a growing plant in situ. No doubt the leaf-blotches really serve as a kind of camouflage, protecting the plants from such enemies as they are bound to have in their native home. The circular, whitish spots of the leaf-surface closely simulate the image of the sun as projected onto the ground by a thin, discontinuous leaf canopy; and this really seems to be a better explanation of their purpose than the theory that they protect the leaves from excessive sunlight.

In conclusion the writer invites any comment, as well as information and material of any species omitted, at his home address, 2667 McAllister Street, San Francisco.

(*) See Marloth, loc. cit., page 87.

***Gasteria* Duval—Generic Definition**

(Liliaceae-Asphodeloideae-Aloineae-Aloinae)

Plants succulent, stemless or nearly so, with rosettes of fleshy

Leaves borne in two straight or twisted, or many, ranks; with coriaceous epidermis which is spotted or tuberculate; and with entire or cartilaginous-denticulate margins;

Inflorescence a lax, secund, simple or paniculate branched raceme;

Flowers pendulous, mostly reddish at base, above whitish with green-lined segments, 20 to 50 mm. long, usually ventricose at base, at middle narrowed and recurved;

Perianth-segments 6, much connate, slightly spreading at mouth;

Ovary superior, 3-celled;

Stamens 6, scarcely protruding;

Fruit a dry capsule.

Related to *Aloe*, *Haworthia* and *Apicra*, differing as follows:

A. Fls. small, erect, whitish; plants small, peduncles slender.

B. Perianth-segments forming an upper and lower lip **Haworthia**

BB. Perianth with equal, radially-spreading segments **Apicra**

AA. Fls. larger, pendulous or spreading, more or less colored.

B. Perianth swollen at base, or recurved, usually both; segments much connate;

stamens scarcely exerted **Gasteria**
BB. Perianth not inflated, or if so, not recurved; segments often only slightly connate, or stamens much exerted. **Aloe**

Literature, Etc.

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Berger, Alwin—"Das Pflanzenreich" 4:38:3: 2; pages 122-158.
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D. C.—DeCandolle, see following.
DeCandolle—"Plantae Grasses."
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S. R. B.—See preceding citation.

The specific name of a plant is usually descriptive of the "habit," color, or country of origin, or of some striking feature of its appearance. As some words may be applied to many species and varieties, it is hoped that an explanation of their meaning and derivation will add to the interest and enjoyment of many who at present consider the names merely an unpleasant, though necessary, appendage to the plants.

To know that *Cypripedium barbatum nigrum* means "the flower like lady's (Venus') slipper, tufted and very dark in color," or that "*sylvatica nana pendula*" means a woodland plant, dwarf and weeping or drooping, must surely add both to the pleasure of the observer in noting to what extent the description fits the plant.

Again, since most of the words here used have given rise to many English words in common use, a study of the lists that will follow will surely increase the reader's knowledge of his own language and add to his enjoyment of the "purest of pleasures." Such, at any rate, has been the experience of the compiler of these lists, and it is with the hope that they will afford equal satisfaction, pleasure, and profit to others that they are here published.

Abies—A Fir tree. From a Latin word, *abeo*, I rise, or depart, referring to the loftiness of fir trees generally.

Acacia—From the stem "ac," meaning sharp, pointed, referring to the spines on some varieties. This stem occurs in many words, such as acid, meaning sharp tasting.

acanthus—A spine or prickle.

acanthodes—Spiny or prickly.

acanthaceae—An order of plants resembling the acanthus in the essential parts of their flowers. The ending -aceus, attached to a plant name, implies a general likeness to the plant.

acaulis—Without a stem. A, at the beginning of a word, often means "not" or without, caulis means a stem; thus, cauliflower, the plant that flowers at the end of its stem.

Acer—The Maple. The wood was used for pikes and spears on account of its hardness. The stem "ac" means sharp, as explained above.

acmopetala—With sharp petals. The Greek word "acme," top, summit, peak, (generally pointed), has become English as in "the acme of perfection."

acris—Sharp, bitter to the taste; the word acrid, burning taste, is derived from this.

acro—The top or summit; acropolis means the elevated fortress of a city, e. g., Edinburgh Castle.

Acroclinium—With a top like a bed, the second part of the word meaning bed or couch. Clinical, as a medical term, is derived from the same word and means "pertaining to the sick bed."

actinocarpus—With radiating seeds or fruit arranged like a star-fish. Actin means a ray, the English word "actinic" refers to the powerful effects of the rays of sunshine, etc. Carpus is from the Greek word for fruit and occurs very frequently in botanical terms.

adenophorus—Gland-bearing or producing. The first part of the word occurs in the word adenoids, a gland-like growth in the nasal passages; the ending "phorus" occurs in phosphorus, meaning light producing, and is the same as the Latin ending -ferus, e. g., Lucifer, the bringer of light.

Adiantum—Maidenhair fern; the word means "not easily wetted," the stems remaining dry even if dipped into water.

adscendens—Climbing or ascending.

aerophyte—A plant living on air, or growing in the air. Aer is the Greek for air, e. g., aeroplane, phyte means growing. Some Orchids appear to draw their sustenance from the air.—E. T. Lancaster in Popular Gardening.

(To be continued)

A GIFT FROM THE GODS—AND THE GARDEN CLUB OF AMERICA

By Pearl Chase

Member Garden Club of Santa Barbara and
Montecito. Chairman, Plans and Planting
Branch Community Arts Association

"These great trees belong to the silences and the milleniums. Many of them have seen more than a hundred of our human generations rise, give out their little clamors and perish. They chide our pettiness, they rebuke our impiety. They seem, indeed, to be forms of immortality standing here among the transitory shapes of time."—Edwin Markham.

* * *

Archibald Menzies of the Vancouver Expedition was the botanical discoverer of the Redwood, about 1793. The specimens he took to England were named as a new genus and species in 1847 by a German botanist, Stephen Endlicher. Thus it was Endlicher who gave to our big trees of the Pacific Coast their appropriately majestic name, "Sequoia Sempervirens"—Sequoia after the Indian chief who devised the Cherokee alphabet and in two years taught his people to read and write. The Sequoia Gigantea, which grows at elevations of from five to eight thousand feet, represents another species of the genus Sequoia.

These groves of giant trees possess a magnificent dignity as well as a tranquil charm. We marvel at their towering height, size and strength, their resistance to fire, to insect pests and diseases, and we envy, perhaps, their abounding vitality. Some Sequoia Sempervirens are twenty feet in diameter, three hundred and sixty feet high, and are estimated to be about three thousand years old. Many are from eight hundred to two thousand years old, their annular rings recording the cycles of dry years and those of heavy rainfall since the time of Christ and before—thin rings for the years of drought, thicker ones for the years when the rainfall was plentiful.

The impiety of man, or his enterprise if you prefer, has sadly thinned the ranks of these august elders of our world, and even threatened to exterminate them. But individuals and organizations have come to their rescue, drawn magic circles of gold about them, and preserved their lives so that they in turn, through remote ages to come, may cast their benediction on our children's children, however impious.

Within a few weeks a new and splendid gift will have been turned over to the State Park Commission for the use and enjoyment

of the people of California and of their visitors, for many centuries.

The Garden Club of America, whose ninety-one member clubs are found along both the Atlantic and Pacific Coasts, and in many a city between, is the donor of a redwood grove which will bear its name in the Humboldt State Redwood Park.

The story of how it happened is one which should arouse enthusiasm and deep appreciation in all those interested in the preservation of the majestic redwoods, Sequoia Sempervirens, which now are found only in the northern California coastal region.

The annual meeting of the club was held in Seattle early in July; and it was there that Mrs. John A. Stewart, a beloved member and former president, presented the plan and reported that, on the special train coming from New York, eastern members had pledged more than ten thousand dollars. Mrs. Duncan McDuffie of Berkeley explained the advantage of co-operating with the Save-the-Redwoods League, and declared that the state stood ready to match each dollar subscribed towards the purchase of such a redwood grove, and the State Park Commission would be in charge of the property after it had been deeded to California. It was announced that, if the contribution were applied in one particular section, the Bull Creek-Dyerville Grove, Mr. John D. Rockefeller, Jr., would, by his own promise, match each private contribution.

The council of presidents and the delegates unanimously voted to raise twenty-five thousand dollars for the purchase and preservation of a redwood grove in one of the State Park projects.

The selection committee, after careful consideration of the available stands of redwoods in Del Norte and Humboldt Counties, recommended the purchase of the Kerr Creek Flat, consisting of seven hundred and seventy-seven acres on the west bank of the south fork of the Eel River, which rushes on its winding course for miles beside the Redwood Highway. The committee held its breath when it agreed to ask the club to raise its gift to thirty thousand dollars for this grove, because it was under option to the Save-the-Redwoods League for fifty-five thousand, and twenty-five hundred more was needed to purchase an entrance tract on the opposite bank, beside the highway. It reported that this grove, about two hundred and thirty-five miles north of San Francisco, could be included in the Humboldt State Redwood Park, but Mr. Rockefeller's offer would not apply to it.

The story runs rapidly until Mrs. William A. Lockwood of East Hampton, Long Island, the national president, was able to write, early

in December: "One of the principal objects of The Garden Club of America is the conservation of our native trees, shrubs and flowers. In the State of California is the last known stand of Giant Redwoods. Our organization, desiring to bear its part in preserving this priceless heritage for future generations, presented the opportunity to its member clubs. The response was immediate and unanimous, and from all parts of our country. The club was never united more enthusiastically upon any project and we are thrilled with the result; for there will be presented to California a fund which the state will double, so that some two thousand or more acres adjacent to the Redwood Highway will be added to the Redwood Park. We are very happy to share in the saving of these wonderful trees and the beautiful native flora under them."

From the treasurer of the Redwoods Fund come the jubilant details. Mrs. Oakleigh Thorne of Millbrook, New York and Santa Barbara, whose efforts during the summer and fall were untiring, reports that contributions were received from all of the ninety-one Garden Clubs of America, and that, in many of them, one hundred per cent of the membership shared in the gift. As a result, in a little over three months, eighty-two thousand dollars has been raised from gifts ranging in amount from one dollar to one thousand.

Mrs. Thorne pays hearty tribute to the splendid co-operation and interest of all the club presidents and says that, in several instances, through them had come special contributions from non-members, including a tiny but very touching one from a kindergarten garden club in Massachusetts.—(California Arts & Architecture.)

PLANTING NOTES

By John A. Armstrong

Many of our finest flowering plants come from South Africa, and after Australasia and the foothills of the Himalaya Mountains, that section ranks third as the source of plant material for California. If we took away all the plants that we are now growing that were originally brought from those three places, we would just about be reduced to our native sagebrush. From Australasia come a large number of trees and some shrubs grown for foliage or flowers. From the Himalayas come largely foliage and berried shrubs, while from South Africa we have obtained many small flowering plants and perennials.

For the Garden Fireplace

One of these is the *Tritoma* or *Kniphofia*, known to most people by neither of these names but as Red Hot Poker, and sometimes as Flame Flower or Torch Lily. They are all character-

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ized by a low grass-like clump of foliage and tall straight flower spikes, each with a flaming red or orange flower tip, which looks for all the world like an old-fashioned poker heated to a glowing hue in a blacksmith's forge. There are low-growing types and tall-growing types, ranging from 1 to 5 feet in height, and all kinds give showy spots of color in the garden.

They are essentially autumn bloomers, but usually in California they bloom almost continuously from midsummer until cold weather comes. Full sun is best, and they show up well against a background of foliage. They are perennial and come up every year, the clumps getting larger and finer each season. Anybody can succeed with them.

The Conflagration Itself

It seems to me I have mentioned in this column before the Australian Flame Tree (*Sterculia acerifolia* or *Brachychiton acerifolia*), but it is such a beautiful tree for coastal sections of Southern California that I cannot refrain from mentioning it again. The botanists could not make up their minds what they

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wanted to call this tree, so the unfortunate nurserymen have to sell it under both names. It makes a tall slender tree of fairly rapid growth and is evergreen, but along about May and June each year it holds a big celebration. It drops all its leaves, which, by the way, look something like those of the Maple, and then covers itself from head to foot with the most brilliant scarlet flowers imaginable, just as bright as those of the finest red flowering eucalyptus. In fact, it is often mistaken for a particularly fine tree of the Red Eucalyptus. The celebration over, and the tree having gained a great deal of admiration and publicity from the passersby, it clothes itself in nice green foliage again.

Fragrance and Rapid Growth

For a rapid growing, thick, dense vine, do not overlook the Honeysuckles, with their fragrant flowers. Hall's Japan and Woodbine are the best for interior sections and the Red Coral is the best for the coast. The first two have creamy yellow flowers and the last rich coral-red flowers. The first two in particular have to be pruned once in a while to get rid of the old wood and keep them fresh and luxuriant.

Try This On Your Wisteria

Have you a Wisteria which produces lots of vigorous shoots but does not have enough flowers to suit you in the springtime? Occasionally this will happen and usually the way to correct it is to do a little summer pruning. Soon after midsummer the young shoots on the main stems should be pinched back to within a foot of the main stem, and when they grow again from just behind the cut, pinch them off the second time. They will then form flower buds at the base of the shoot. Usually it is pruning in the growing season during the summer which causes the formation of flower buds on Wisteria rather than pruning during the dormant season in the winter.

ORNAMENTAL TREES

By John A. Armstrong

We have a few specimens scattered throughout Southern California of a most beautiful small tree of which the origin and even the name is somewhat obscure. This is the tree which is usually called, "The Evergreen Elm." For a comparatively small tree, it is exceedingly valuable, and it may be considered to be evergreen in this section because it actually does hold all of its leaves in warm winters except in the colder interior sections. This winter at Ontario it did drop its leaves for about three weeks but by late February it was again out in full foliage, and the leafless period is so short that we can reasonably call it evergreen. It has typical Elm foliage, light green when it first appears, becoming dark green later, and the slender branches are somewhat pendulous and will hang clear to the ground

if allowed to retain its natural shape. Usually for parkways or in the garden it is pruned up so that people can walk under it, and it lends itself very readily to such treatment. The top is rather widespreading and it does not get very high.

The tree *Ulmus parvifolia* is the name usually applied to it, but the seed of *Ulmus parvifolia* brought from China produces an entirely different tree which loses its leaves for about three months in the winter time here in this section, and these trees grown from seed are much inferior to the true Evergreen species described above. This Evergreen species can only be grown from cuttings, at least the seed gathered here does not seem to germinate. This Evergreen species is sometimes called *Ulmus sempervirens*, but whatever the name, it is one of the finest small trees that I know.

The Tree Without A Home

Away out in the Pacific Ocean several hundred miles off the coast of Mexico are the lonely Guadalupe Islands, bleak and uninhabited. They were not always bleak, however, because one of the most beautiful Cypress trees in existence was originally found on these islands. However, goats released from some passing steamer, have multiplied during the past few years so rapidly that they have eaten the bark from all of the beautiful Cypress trees growing on the Islands until they are now all dead or soon will be.

This is the Guadalupe Cypress and there are a few fine specimens here and there in California from which we can perpetuate the species even though the tree has been driven from its native home. It resembles in some respects the Arizona Cypress but is much more graceful in outline and much more attractive in color, being a beautiful soft gray-blue, remarkably bright in the springtime when the new growth is present. For light colored foliage

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where a medium sized, tall tree is desired and where not a great deal of water is available, the Guadalupe Cypress is an exceedingly valuable tree.

The Japanese Pagoda Tree

The Pagoda Tree (*Sophora japonica*) is a very fine deciduous tree, losing its leaves in the winter, and not much appreciated in California, largely because it is so little known. It makes a very large tree, attaining a height of 50 or 60 feet and spreading out for the same distance, forming a dense, large, round head of dark green, graceful foliage, each leaf made up of small leaflets. Late in the summer great panicles of white flowers appear, and even in winter the tree is conspicuous because of its smooth, dark green bark. The tree will grow in almost any location, requires no particular care and once started can be left to shift for itself with the assurance that it will make a beautiful large tree. The tree is a native of China, but is widely cultivated in Japan, being usually associated with Buddhist Temples and other religious sanctuaries in that country. In the Orient, trees 80 feet tall, with a trunk 12 feet in girth, and an abundance of gnarled, widespreading roots are frequently to be seen. It is a very interesting tree and certainly a valuable one for our gardens where a large, widespreading tree is desired.

FEEDING PLANTS EFFICIENTLY

Progress is one of the fundamentals in American business. Search for, and use of, better methods represents one means of increasing production and the margin of profit. In the greenhouse, this search for improved methods should apply especially to plant feeding. Such a rapid development has taken place in this phase of greenhouse management that it is easy for a grower to become old-fashioned in his feeding methods.

The scientific principles underlying plant feeding are generally recognized today. It is known that 17 elements are required by plants for their normal growth and development. Of these 14 come from the soil and three from the air and water. Four of the fourteen are required in such small amounts that there is usually, as yet, no need to provide them especially in a plant food. The remaining ten are used in larger amounts and any of them may be so deficient in a soil that plant growth will be retarded.

The elements which are required by plants in relatively large amounts and which must be present in the soil in readily available form, include the following:

Nitrogen, phosphorus and sulphur, which enter into the composition of the protein material of the plant; magnesium, iron and manganese, which must be present before chlorophyll bodies will be formed; potassium, which

is necessary to the manufacture of carbohydrate materials; calcium, which enters into an important compound in the cell wall; and sodium and chlorine.

Materials that may be used in a greenhouse as a source of plant food elements, include (a) organic materials and (b) those of a chemical nature. When a group of people first take up the practice of feeding plants, it naturally turns to materials of an organic nature; a familiar example was the practice of placing a fish in each hill of corn by the American Indian. But under more intensive cultivation it is not possible to provide plants with a complete and balanced diet where these materials are used, unless certain elements are provided from inorganic sources and in proper amounts.

Organic materials, added to the soil, must pass through a period of decomposition during which the complex organic compounds are broken down into simple inorganic compounds, in which form plants take their food. In modern plant feeding practice it is found to be as effective to add to the soil the simple, inorganic compounds, already in a form available to plants, as to provide for their production in the soil from complex organic materials. Commercial plantfoods are designed for this purpose.

Such plant foods may be properly balanced, to provide each of the elements in about the proportion most desirable to plants. This is especially important under greenhouse conditions, because the plants are required to grow in so small a volume of soil and are forced so heavily. Because the method is new, some growers hesitate to take it up, but by ignoring the benefits to be derived from the use of such plant foods, they are disregarding one of the means by which they can increase production and their margin of profit. —J. F. Fonder, Ph. D., in *Florists' Exchange*.



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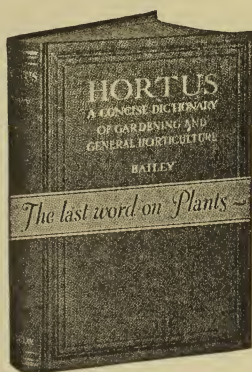
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